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SEARCH REQUEST FORM

Requester's Full Name: Jeffrey E. Russel Examiner # : 62785 Date: 5-13-2005

Art Unit: 1654 Phone Number: 2-0969 Serial Number: 10/629,649

Location (Bldg/Room#): REM 3D19 (Mailbox #): 3C18 Results Format Preferred (circle): PAPER (DISK)

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To ensure an efficient and quality search, please attach a copy of the cover sheet, claims, and abstract or fill out the following:

Title of Invention: Methods And Compositions For Treating Polycystic Ovary Syndrome

Inventors (please provide full names): N. Beeley, K. Prickett, A. Young, D. Hathaway

Earliest Priority Date: 7-30-2003

Search Topic:

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc., if known.

For Sequence Searches Only* *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

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Please search the following partial sequence in STN:

HGAA(A/T)X(T/S)(A/S/T)AX(A/S)(A/K)(A/Q).

Thank you.

JER

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___ AA Sequence (#)

___ Structure (#)

___ Bibliographic

___ Litigation

___ Fulltext

___ Other

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___ Questel/Orbit ___ Lexis/Nexis

___ Westlaw ___ WWW/Internet

✓ In-house sequence systems CGN

___ Commercial ___ Oligomer ___ Score/Length

___ Interference ___ SPDI ___ Encode/Transl

___ Other (specify)

Russel, J.
10/629649

FILE 'REGISTRY' ENTERED AT 10:46:20 ON 19 MAY 2005

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 MAY 2005 HIGHEST RN 850688-83-4
DICTIONARY FILE UPDATES: 18 MAY 2005 HIGHEST RN 850688-83-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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* *
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
* *
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Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
http://www.cas.org/ONLINE/DBSS/registryss.html

L1 72 SEA ABB=ON PLU=ON HGEGTFTSDLSKQMEEEAVRLFIEWLKNGGPSSGAPPPS
|HGAA[AT].[TS][AST]A.[AS][AK][AQ]/SQSP

FILE 'CAPLUS' ENTERED AT 10:46:20 ON 19 MAY 2005

FILE COVERS 1907 - 19 May 2005 VOL 142 ISS 21
FILE LAST UPDATED: 18 May 2005 (20050518/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate

substance identification.

L2 109 S L1
L3 15 S L2 NOT (PY=>2003 OR PD=>20030730) ← Limit to cites earlier than 07-30-03

L3 ANSWER 1 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 22 Sep 2003
ACCESSION NUMBER: 2003:738638 CAPLUS
DOCUMENT NUMBER: 139:286359
TITLE: New insulinotropic secretory peptide Exendin 4 analogs for treating type II diabetes mellitus
INVENTOR(S): Sun, Yukun; Wu, Dengxi; Zhu, Zhiyong; Yu, Gang; Shen, Chunjuan; Zhao, Shaoling; Zhou, Jiaxiang
PATENT ASSIGNEE(S): Huayi Biological Technology Co., Ltd., Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 10 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1381271	A	20021127	CN 2002-111564	20020429
PRIORITY APPLN. INFO.:			CN 2002-111564	20020429

AB The invention relates to the application of insulinotropic secretory peptide Exendin 4 analogs and their salt in preparing the medicine for treating type II diabetes mellitus.
IT **606150-09-8**
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(amino acid sequence; insulinotropic secretory peptide Exendin 4 analogs for treating type II diabetes mellitus)

L3 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 25 Aug 2002
ACCESSION NUMBER: 2002:640378 CAPLUS
DOCUMENT NUMBER: 137:346599
TITLE: Cellular specificity of proexendin-4 processing in mammalian cells in vitro and in vivo
AUTHOR(S): Adatia, F. A.; Baggio, L. L.; Xiao, Q.; Drucker, D. J.; Brubaker, P. L.
CORPORATE SOURCE: Department of Physiology, University of Toronto, Toronto, ON, M5S 1A8, Can.
SOURCE: Endocrinology (2002), 143(9), 3464-3471
CODEN: ENDOAO; ISSN: 0013-7227
PUBLISHER: Endocrine Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Glucagon-like peptide-1 (GLP-1) is a potent stimulator of glucose-dependent insulin secretion. Exendin-41-39 (Ex-4), isolated from Gila monster venom, is a highly specific GLP-1 receptor agonist that exhibits a prolonged duration of action in vivo. Although the processing mechanisms underlying liberation of GLP-1 from its prohormone have been elucidated, those for Ex-4 remain unknown. To examine the requirements for proEx-4 processing in mammalian cells,

BHK fibroblasts, InR1-G9 islet A cells, and AtT-20 corticotrophs, which express different prohormone convertases (furin, prohormone convertase 2, and prohormone convertase 1, resp.) were transfected with full-length lizard proEx-4, and the processing of proexendin was examined by HPLC and RIA. All of the transfected cell lines exhibited Ex-4-like immunoreactivity in the media, and Ex-4-like immunoreactivity was detected in exts. of InR1-G9 and AtT-20 cells. However, only media and exts. from AtT-20 cells (not InR1-G9 and BHK cells) contained a single peak by HPLC corresponding to synthetic Ex-4. To establish whether proEx-4 can be processed to Ex-4 in nonimmortalized mammalian cells in vivo, the mol. forms of exendin-4 were examined in male and female mice expressing a metallothionein-proEx-4 transgene. ProEx4 mRNA transcripts were detected by RT-PCR in a broad range of both endocrine and nonendocrine tissues. Ex-4-like immunoreactivity was detected in pituitary, fat, adrenals, and testes; however HPLC analyses demonstrated that processed Ex-4 was found only in adrenals and testes. These results indicate that lizard proEx-4 is processed to mature bioactive Ex-4 in both rodent endocrine and non-endocrine mammalian cell types in vitro and in murine tissues in vivo. These findings may be useful for engineering cells that express a lizard proEx-4 transgene for the treatment of type 2 diabetes.

IT **188265-76-1**, Exendin 4, pro- (Heloderma suspectum)
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(proexendin-4 processing to mature bioactive exendin-4 in rodent endocrine and non-endocrine mammalian cell types in vitro and in murine tissues in vivo)

REFERENCE COUNT: 47 THERE ARE 47 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 15 May 2002
ACCESSION NUMBER: 2002:361520 CAPLUS
DOCUMENT NUMBER: 137:88643
TITLE: Endoproteolysis by isolated membrane peptidases reveal metabolic stability of glucagon-like peptide-1 analogs, exendins-3 and -4
AUTHOR(S): Thum, A.; Hupe-Sodmann, K.; Goke, R.; Voigt, K.; Goke, B.; McGregor, G. P.
CORPORATE SOURCE: Institute of Physiology, Philipps-University, Marburg, D-35037, Germany
SOURCE: Experimental and Clinical Endocrinology & Diabetes (2002), 110(3), 113-118
CODEN: ECEDFQ; ISSN: 0947-7349
PUBLISHER: Johann Ambrosius Barth
DOCUMENT TYPE: Journal
LANGUAGE: English

AB These in vitro studies aimed to characterize the pattern and the kinetics of endoproteolysis of the insulinotropic hormone glucagon-like peptide-1 (GLP-1) and related peptides by native ectopeptidases. Peptides were incubated with isolated rat or pig kidney brush-border microvilli membranes, which are a rich source of the ectopeptidases that are responsible for the post-secretory metabolism of peptide hormones. The proteolytic products were separated by reversed-phase HPLC column chromatog. and characterized by mol. mass and primary structure. The relative importance of specific peptidases was established by measuring the effects of specific peptidase inhibitors on the kinetics of proteolysis. Dipeptidyl-peptidase-IV was found to be rate-limiting in the endoproteolysis of GLP-1. GLP-1

homologs, exendins-3 and -4, exhibited exceptional stability in the presence of isolated kidney microvilli membranes. Our finding that exendin-4 is several orders of magnitude more stable than GLP-1 and Ser-8-GLP-1 is especially noteworthy given this peptide's widely reported insulinotropic potency.

IT **141758-74-9**, Exendin 4 (Heloderma suspectum)
RL: BSU (Biological study, unclassified); PKT (Pharmacokinetics); BIOL (Biological study)
(endoproteolysis by isolated membrane peptidases reveal metabolic stability of glucagon-like peptide-1 analogs and exendin-3 and -4)

REFERENCE COUNT: 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 06 Apr 2001
ACCESSION NUMBER: 2001:247368 CAPLUS
DOCUMENT NUMBER: 134:290749
TITLE: Pituitary adenylate cyclase activating peptide (PACAP) receptor 3 (R3) agonists and their pharmacological methods of use in treating metabolic disorders and respiratory disease
INVENTOR(S): Pan, Clark; Tsutsumi, Manami; Shanafelt, Armen B.
PATENT ASSIGNEE(S): Bayer Corporation, USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001023420	A2	20010405	WO 2000-US26638	20000927
WO 2001023420	A3	20010830		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2379604	AA	20010405	CA 2000-2379604	20000927
EP 1192182	A2	20020403	EP 2000-967002	20000927
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				

PRIORITY APPLN. INFO.:

US 1999-407832	A	19990928
US 2000-595280	A	20000615
WO 2000-US26638	W	20000927

AB The invention provides novel peptides that function in vivo to stimulate insulin release from pancreatic beta cells in a glucose-dependent fashion. These insulin secretagogue peptides are shown to stimulate insulin release in rat islet cells in vitro, and in

vivo. The peptides of the present invention provide a new therapy for patients with decreased endogenous insulin secretion, in particular type 2 diabetics. In particular, the invention is a polypeptide selected from a specific group of VIP/PACAP-related polypeptides, or functional equivalent thereof. The invention is also directed to a method of treating a metabolic disease or a respiratory disease in a mammal comprising administering a therapeutically effective amount of the insulin secretagogue peptides to said mammal. Also disclosed are methods of making the peptides, both recombinant and synthetic; pharmaceutical compns. containing the peptides; and antibodies to the peptides.

IT **203743-40-2**
RL: PRP (Properties)
(unclaimed protein sequence; pituitary adenylate cyclase activating peptide (PACAP) receptor 3 (R3) agonists and their pharmacol. methods of use in treating metabolic disorders and respiratory disease)

L3 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 Jan 1999
ACCESSION NUMBER: 1999:18104 CAPLUS
DOCUMENT NUMBER: 130:178590
TITLE: Black widow spider α-latrotoxin: a presynaptic neurotoxin that shares structural homology with the glucagon-like peptide-1 family of insulin secretagogic hormones
AUTHOR(S): Holz, George G.; Habener, Joel F.
CORPORATE SOURCE: Diabetes Unit, Howard Hughes Medical Institute, Massachusetts General Hospital, Harvard Medical School, Boston, MA, 02114, USA
SOURCE: Comparative Biochemistry and Physiology, Part B: Biochemistry & Molecular Biology (1998), 121B(2), 177-184
CODEN: CBPBB8; ISSN: 0305-0491
PUBLISHER: Elsevier Science Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB α-Latrotoxin is a presynaptic neurotoxin isolated from the venom of the black widow spider Latrodectus tredecimguttatus. It exerts toxic effects in the vertebrate central nervous system by depolarizing neurons, by increasing [Ca2+]i and by stimulating uncontrolled exocytosis of neurotransmitters from nerve terminals. The actions of α-latrotoxin are mediated, in part, by a GTP-binding protein-coupled receptor referred to as CIRL or latrophilin. Exendin-4 is also a venom toxin, and it is derived from the salivary gland of the Gila monster Heloderma suspectum. It acts as an agonist at the receptor for glucagon-like peptide-1(7-36)-amide (GLP-I), thereby stimulating secretion of insulin from pancreatic β-cells of the islets of Langerhans. Here is reported a surprising structural homol. between a-latrotoxin and exendin-4 that is also apparent amongst all members of the GLP-1-like family of secretagogic hormones (GLP-1, glucagon, vasoactive intestinal polypeptide, secretin, pituitary adenylyl cyclase activating polypeptide). On the basis of this homol., we report the synthesis and initial characterization of a chimeric peptide (Black Widow GLP-1) that stimulates Ca2+ signaling and insulin secretion in human β-cells and MIN6 insulinoma cells. It is also reported here that the GTP-binding protein-coupled receptors for α-latrotoxin and exendin-4 share highly significant structural similarity in their extracellularly-oriented

amino-termini. We propose that mol. mimicry has generated conserved structural motifs in secretagogic toxins and their receptors, thereby explaining the evolution of defense or predatory strategies that are shared in common amongst distantly related species including spiders, lizards, and snakes. Evidently, the toxic effects of α-latrotoxin and exendin-4 are explained by their ability to interact with GTP-binding protein-coupled receptors that normally mediate the actions of endogenous hormones or neuropeptides.

IT **141758-74-9**, Exendin 4 (Heloderma suspectum)
RL: PRP (Properties)
(latrotoxin shares structural homol. with glucagon-like peptide-1 family of insulin secretagogic hormones)

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 18 May 1998
ACCESSION NUMBER: 1998:287874 CAPLUS
DOCUMENT NUMBER: 129:78077
TITLE: Molecular cloning of the helodermin and exendin-4 cDNAs in the lizard. Relationship to vasoactive intestinal polypeptide/pituitary adenylate cyclase activating polypeptide and glucagon-like peptide 1 and evidence against the existence of mammalian homologues
AUTHOR(S): Pohl, Markus; Wank, Stephen A.
CORPORATE SOURCE: Digestive Diseases Branch, NIDDK, Natl. Inst. of Health, Bethesda, MD, 20892, USA
SOURCE: Journal of Biological Chemistry (1998), 273(16), 9778-9784
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Helodermin and exendin-4, two peptides isolated from the salivary gland of the Gila monster, Heloderma suspectum, are approx. 50% homologous to vasoactive intestinal peptide (VIP) and glucagon-like peptide-1 (GLP-1), resp., and interact with the mammalian receptors for VIP and GLP-1 with equal or higher affinity and efficacy. Immunohistochem. studies suggested the presence of helodermin-like peptides in mammals. To determine whether helodermin and exendin-4 are present in mammals and their evolutionary relationship to VIP and GLP-1, their cDNAs were first cloned from Gila monster salivary gland. Northern blots and reverse transcription-polymerase chain reaction of multiple Gila monster tissues identified .apprx.500-base pair transcripts only from salivary gland. Both helodermin and exendin-4 full-length cDNAs were .apprx.500 base pairs long, and they encoded precursor proteins containing the entire amino acid sequence of helodermin and exendin-4, as well as a 44- or 45-amino acid N-terminal extension peptide, resp., having .apprx.60% homol. The size and structural organization of these cDNAs indicated that they are closely related to one another but markedly different from known cDNAs for the VIP/GLP-1 peptide family previously identified in both lower and higher evolved species. Cloning of the Gila monster VIP/peptide histidine isoleucine, pituitary adenylate cyclase activating polypeptide, and glucagon/GLP-1 cDNAs and Southern blotting of Gila monster DNA demonstrate the coexistence of sep. genes for these peptides and

suggests, along with the restricted salivary gland expression, that helodermin and exendin-4 coevolved to serve a sep. specialized function. Probing of a variety of rat and human tissues on Northern blots, human and rat Southern blots, and genomic and cDNA libraries with either helodermin- or exendin-4-specific cDNAs failed to identify evidence for mammalian homologs. These data indicate that helodermin and exendin-4 are not the precursors to VIP and GLP-1 and that they belong to a sep. peptide family encoded by sep. genes. Furthermore, the existence of as yet undiscovered mammalian homologs to helodermin and exendin-4 seems unlikely.

IT **141758-74-9**, Exendin 4 (Heloderma suspectum)
188265-76-1, Exendin 4, pro- (Heloderma suspectum)
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(amino acid sequence; mol. cloning and sequence of the helodermin and exendin-4 cDNAs in the Gila monster)

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 25 Feb 1998
ACCESSION NUMBER: 1998:112250 CAPLUS
DOCUMENT NUMBER: 128:192936
TITLE: Preparation of exendin peptide analogs as agonists for regulating gastrointestinal motility
INVENTOR(S): Young, Andrew A.; Gedulin, Bronislava; Beeley, Nigel Robert Arnold; Prickett, Kathryn S.
PATENT ASSIGNEE(S): Amylin Pharmaceuticals, Inc., USA; Young, Andrew A.; Gedulin, Bronislava; Beeley, Nigel Robert Arnold; Prickett, Kathryn S.
SOURCE: PCT Int. Appl., 70 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 9805351	A1	19980212	WO 1997-US14199		19970808
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM					
RW: GH, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG					
CA 2262647	AA	19980212	CA 1997-2262647		19970808
AU 9740636	A1	19980225	AU 1997-40636		19970808
EP 966297	A1	19991229	EP 1997-938261		19970808
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI					
JP 2001501593	T2	20010206	JP 1998-508263		19970808
PRIORITY APPLN. INFO.:			US 1996-694954	A	19960808
			WO 1997-US14199	W	19970808

OTHER SOURCE(S): MARPAT 128:192936

AB Methods for reducing gastric motility and delaying gastric emptying for therapeutic and diagnostic purposes are disclosed which comprise administration of an effective amount of an exendin or an exendin agonist H-Xaa1-Xaa2-Xaa3-Gly-Thr-Xaa4-Xaa5-Xaa6-Xaa7-Xaa8-Ser-Lys-Gln-Xaa9-Glu-Glu-Glu-Ala-Val-Arg-Leu-Xaa10-Xaa11-Xaa12-Xaa13-Leu-Lys-Asn-Gly-Gly-Xaa14-Ser-Ser-Gly-Ala-Xaa15-Xaa16-Xaa17-Xaa18-Z [Xaa1 = His, Arg, Tyr; Xaa2 = Ser, Gly, Ala, Thr; Xaa3, Xaa7, Xaa12 = independently Asp, Glu; Xaa4, Xaa10 = independently Phe, Tyr, naphthylalanine; Xaa5, Xaa6 = independently Thr, Ser; Xaa8, Xaa9 = independently Leu, Ile, Val, pentylglycine, Met; Xaa11 = any group Xaa8, tert-butylglycine; Xaa13 = any group Xaa4, Trp; Xaa14-Xaa17 = independently Pro, homoproline, 3-Hyp, 4-Hyp, thioproline, N-alkylglycine, N-alkylpentylglycine, N-alkylalanine; Xaa18 = Ser, Thr, Tyr; Z = OH, NH2; with the proviso that the compound does not have the formula of exendin-3 or exendin-4] or a pharmaceutically acceptable salt thereof. Methods for treating conditions associated with elevated, inappropriate, or undesired post-prandial blood glucose levels are disclosed which comprise administration of an effective amount of an exendin or an exendin agonist alone or in conjunction with other anti-gastric emptying agents. Thus, exendin-4 acid and [Leu14,Phe25]-exendin-4, prepared by standard solid-phase methods on a 4-(2,4-dimethoxyphenyl)-Fmoc-aminomethylphenoxyacetamide norleucine-MBHA resin using 9-fluorenylmethoxycarbonyl (Fmoc)-protected amino acids, inhibited gastric emptying in male HSD rats with EC50 = 0.12 and 0.29 μg. Exendin-4 showed EC50 = 0.27 μg under the same conditions.

IT **141758-74-9P**, Exendin-4 (Heloderma suspectum)
203743-28-6P 203743-30-0P 203743-40-2P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of exendin peptide analogs as agonists for regulating gastrointestinal motility)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 11 Sep 1997
ACCESSION NUMBER: 1997:577997 CAPLUS
DOCUMENT NUMBER: 127:257827
TITLE: Novel signal transduction and peptide specificity of glucagon-like peptide receptor in 3T3-L1 adipocytes
AUTHOR(S): Montrose-Rafizadeh, Chahrzad; Yang, Huan; Wang, Yihong; Roth, Jesse; Montrose, Marshall H.; Adams, Lisa G.
CORPORATE SOURCE: Laboratory of Clinical Physiology, Gerontology Research Center, National Institute on Aging, NIH, Baltimore, MD, USA
SOURCE: Journal of Cellular Physiology (1997), 172(3), 275-283
CODEN: JCLLAX; ISSN: 0021-9541
PUBLISHER: Wiley-Liss
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Glucagon-like peptide-1 (7-36) amide (GLP-1), in addition to its well known effect of enhancing glucose-mediated insulin release, has been

shown to have insulinomimetic effects and to enhance insulin-mediated glucose uptake and lipid synthesis in 3T3-L1 adipocytes. To elucidate the mechanisms of GLP-1 action in these cells, the authors studied the signal transduction and peptide specificity of the GLP-1 response. In 3T3-L1 adipocytes, GLP-1 caused a decrease in intracellular cAMP levels which is the opposite to the response observed in pancreatic beta cells in response to the same peptide. In 3T3-L1 adipocytes, free intracellular calcium was not modified by GLP-1. Peptide specificity was examined to help determine if a different GLP receptor isoform was expressed in 3T3-L1 adipocytes vs. beta cells. Peptides with partial homol. to GLP-1 such as GLP-2, GLP-1 (1-36), and glucagon all lowered cAMP levels in 3T3-L1 adipocytes. In addition, an antagonist of pancreatic GLP-1 receptor, exendin-4 (9-39), acted as an agonist to decrease cAMP levels in 3T3-L1 adipocytes as did exendin-4 (1-39), a known agonist for the pancreatic GLP-1 receptor. Binding studies using 125I-GLP-1 also suggest that pancreatic GLP-1 receptor isoform is not responsible for the effect of GLP-1 and related peptides in 3T3-L1 adipocytes. Based on these results, the authors propose that the major form of the GLP receptor in 3T3-L1 adipocytes is functionally different from the pancreatic GLP-1 receptor.

IT **141758-74-9**, Exendin 4 (Heloderma suspectum)
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(signal transduction and peptide specificity of glucagon-like peptide receptor in 3T3-L1 adipocytes)

REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 05 Sep 1997
ACCESSION NUMBER: 1997:567059 CAPLUS
DOCUMENT NUMBER: 127:257697
TITLE: High potency antagonists of the pancreatic glucagon-like peptide-1 receptor
AUTHOR(S): Montrose-Rafizadeh, Chahrzad; Yang, Huan; Rodgers, Buel D.; Beday, Alvie; Pritchette, Louella A.; Eng, John
CORPORATE SOURCE: Laboratory of Clinical Physiology, NIA, National Institutes of Health, Baltimore, MD, 21224, USA
SOURCE: Journal of Biological Chemistry (1997), 272(34), 21201-21206
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB GLP-1-(7-36)-amide and exendin-4-(1-39) are glucagon-like peptide-1 (GLP-1) receptor agonists, whereas exendin-(9-39) is the only known antagonist. To analyze the transition from agonist to antagonist and to identify the amino acid residues involved in ligand activation of the GLP-1 receptor, we used exendin analogs with successive N-terminal truncations. Chinese hamster ovary cells stably transfected with the rat GLP-1 receptor were assayed for changes in intracellular cAMP caused by the test peptides in the absence or presence of half-maximal stimulatory doses of GLP-1. N-terminal truncation of a single amino acid reduced the agonist activity of the exendin peptide, whereas N-terminal truncation of 3-7 amino acids produced antagonists that

were 4-10-fold more potent than exendin-(9-39). N-terminal truncation of GLP-1 by 2 amino acids resulted in weak agonist activity, but an 8-amino acid N-terminal truncation inactivated the peptide. Binding studies performed using 125I-labeled GLP-1 confirmed that all bioactive peptides specifically displaced tracer with high potency. In a set of exendin/GLP-1 chimeric peptides, substitution of GLP-1 sequences into exendin-(3-39) produced loss of antagonist activity with conversion to a weak agonist. The results show that receptor binding and activation occur in sep. domains of exendin, but they are more closely coupled in GLP-1.

IT **141758-74-9**, Exendin 4 (Heloderma suspectum)
RL: BAC (Biological activity or effector, except adverse); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study); PROC (Process)
(glucagon-like peptide-1 receptor high potency antagonists and structure-activity relations thereof)

L3 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 26 Feb 1997
ACCESSION NUMBER: 1997:127672 CAPLUS
DOCUMENT NUMBER: 126:223096
TITLE: Tissue-specific expression of unique mRNAs that encode proglucagon-derived peptides or exendin 4 in the lizard
AUTHOR(S): Chen, Yuqing E.; Drucker, Daniel J.
CORPORATE SOURCE: Toronto Hosp., Univ. Toronto, Toronto, ON, M5G 2C4, Can.
SOURCE: Journal of Biological Chemistry (1997), 272(7), 4108-4115
CODEN: JBCHA3; ISSN: 0021-9258
PUBLISHER: American Society for Biochemistry and Molecular Biology
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Glucagon-like peptide 1 stimulates insulin secretion and inhibits glucagon secretion, gastric emptying, and feeding, suggesting it may be biol. useful for the treatment of diabetes. A lizard glucagon-like peptide 1(GLP-1)-related peptide, exendin 4, binds to the GLP-1 receptor and mimics the actions of GLP-1 in vivo. To determine the genetic relationship between exendin 4 and GLP-1, the authors analyzed the structure and expression of pancreatic and intestinal proglucagon mRNAs in the reptile Heloderma suspectum. Two different proglucagon cDNAs (lizard proglucagon I (LPI) and lizard proglucagon II (LPII)), with unique 3'-untranslated regions were identified. Two LPI mRNA transcripts, .apprx.1.6 and 2.1 kilobases, encoded glucagon and GLP-1 but not GLP-2 and were restricted in expression to the pancreas. In contrast, a 1.1-kilobase LPII mRNA transcript, encoding glucagon, GLP-1, and GLP-2 utilized a different 3'-untranslated region and was expressed in both pancreas and intestine. Lizard proglucagon mRNA transcripts were not detectable by reverse transcription-polymerase chain reaction or Northern blotting in salivary gland. A single class of lizard salivary gland proexendin cDNAs encoded the sequence of exendin 4 and a 45-amino acid exendin N-terminal peptide. Exendin mRNA transcripts were expressed in the salivary gland, but not pancreas or intestine. These data demonstrate that GLP-1 and exendin 4 represent related yet distinct peptide encoded by different genes in the lizard.

IT **188265-76-1**, Exendin 4, pro- (Heloderma suspectum)
RL: PRP (Properties)

(amino acid sequence; unique mRNAs that encode proglucagon-derived peptides or exendin 4 tissue-specific expression in lizard)

L3 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 14 Jul 1995
ACCESSION NUMBER: 1995:675100 CAPLUS
DOCUMENT NUMBER: 123:74913
TITLE: Exendin-3 and exendin-4 polypeptides, and pharmaceutical compositions comprising them
INVENTOR(S): Eng, John
PATENT ASSIGNEE(S): USA
SOURCE: U.S., 17 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5424286	A	19950613	US 1993-66480	19930524
PRIORITY APPLN. INFO.:			US 1993-66480	19930524

AB This invention encompasses pharmaceutical compns. containing exendin-3 or exendin-4, fragments thereof, or any combination thereof, and methods for the treatment of diabetes mellitus and the prevention of hyperglycemia.
IT **141758-74-9**, Exendin 4 (Heloderma suspectum)
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(exendin-3 and exendin-4 polypeptides, and pharmaceutical compns. comprising them)

L3 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 12 Nov 1994
ACCESSION NUMBER: 1994:622490 CAPLUS
DOCUMENT NUMBER: 121:222490
TITLE: Use of 125I-[Y39]exendin-4 to characterize exendin receptors on dispersed pancreatic acini and gastric chief cells from guinea pig
AUTHOR(S): Singh, Gurcharn; Eng, John; Raufman, Jean-Pierre
CORPORATE SOURCE: Gastrointestinal Cell Biology Laboratory, State University of New York-Health Science Center at Brooklyn, 450 Clarkson Avenue-Box 1196, Brooklyn, NY, 11203-2098, USA
SOURCE: Regulatory Peptides (1994), 53(1), 47-59
CODEN: REPPDY; ISSN: 0167-0115
DOCUMENT TYPE: Journal
LANGUAGE: English
AB We synthesized and iodinated an exendin-4 analog, [Y39]exendin-4 (700 Ci/mmol), for use as a radioligand to characterize exendin receptors on dispersed pancreatic acini and gastric chief cells from guinea pig. Binding of this bioactive radioligand was rapid, temperature-dependent and specific (not inhibited by other pancreatic or gastric secretagogues). Measurement of the ability of exendin-4 to inhibit the binding of 125I-[Y39]exendin-4 indicated the presence of two classes of receptors. Pancreatic acini had 12.5 + 1010 binding sites/mg acinar protein of which 6% were high affinity (Kd = 0.5 nM) and 94%

were low affinity (Kd = 0.1 μM). Chief cells had 3370 binding sites/cell of which 9% were high affinity (Kd = 0.3 nM) and 91% were low affinity (Kd = 0.2 μM). Washing with 0.2 M acetic acid (pH 2.5), 0.2 M glycine (pH 10.5), or trypsin (100 μg/mL) after 30 min incubation at 37°, indicated that 63 and 49% of radioligand was internalized in acini and chief cells, resp. Truncated glucagon-like peptide-1 (tGLP-1), a mammalian peptide sharing 53% homol. with exendin-4, inhibited radioligand binding at the same concns. that altered secretion from acini and chief cells. Glucagon, GLP-1 and GLP-2 inhibited 125I-[Y39]exendin-4 binding only at concns. ≥100 nM. Exendin(9-39)NH2, a specific exendin-receptor antagonist, potently inhibited 125I-[Y39] exendin-4 binding (IC50 = 6.1 and 3.5 nM in acini and chief cells, resp.). In pancreatic acini and gastric chief cells from guinea pig, exendin-3, exendin-4 and tGLP-1 increase cellular cAMP and modulate enzyme secretion by interacting with high-affinity exendin receptors. 125I-[Y39] exendin-4 is a useful radioligand for studying exendin receptors.

IT **141758-74-9**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(cAMP formation and enzyme secretion by pancreas acinus and stomach chief cells response to)

L3 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 13 Nov 1993
ACCESSION NUMBER: 1993:597526 CAPLUS
DOCUMENT NUMBER: 119:197526
TITLE: Exendin-4 is a high potency agonist and truncated exendin-(9-39)-amide an antagonist at the glucagon-like peptide 1-(7-36)-amide receptor of insulin-secreting β-cells
AUTHOR(S): Goeke, Ruediger; Fehmann, Hans Christoph; Linn, Thomas; Schmidt, Harald; Krause, Michael; Eng, John; Goeke, Burkhard
CORPORATE SOURCE: Dep. Intern. Med., Philipps Univ., Marburg, 3550, Germany
SOURCE: Journal of Biological Chemistry (1993), 268(26), 19650-5
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Exendin-4 purified from Heloderma suspectum venom shows structural relationship to the important incretin hormone glucagon-like peptide 1-(7-36)-amide (GLP-1). The authors demonstrate that exendin-4 and truncated exendin-(9-39)-amide specifically interact with the GLP-1 receptor on insulinoma-derived cells and on lung membranes. Exendin-4 displaced 125I-GLP-1, and unlabeled GLP-1 displaced 125I-exendin-4 from the binding site at rat insulinoma-derived RINm5F cells. Exendin-4 had, like GLP-1, a pronounced effect on intracellular cAMP generation, which was reduced by exendin-(9-39)-amide. When combined, GLP-1 and exendin-4 showed additive action on cAMP. They each competed with the radiolabeled version of the other peptide in crosslinking expts. The apparent mol. mass of the resp. ligand-binding protein complex was 63,000 Da. Exendin-(9-39)-amide abolished the crosslinking of both peptides. Exendin-4, like GLP-1, stimulated dose dependently the glucose-induced insulin secretion in isolated rat islets, and, in mouse insulinoma βTC-1 cells, both peptides stimulated the proinsulin gene expression at the level of transcription. Exendin-(9-39)-amide reduced these effects. In

conclusion, exendin-4 is an agonist and exendin-(9-39)-amide is a specific GLP-1 receptor antagonist.

IT **141758-74-9**
RL: BIOL (Biological study)
(glucagon-like peptide 1-(7-36)-amide receptor of β-cells and lung response to)

L3 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 01 Nov 1992
ACCESSION NUMBER: 1992:564310 CAPLUS
DOCUMENT NUMBER: 117:164310
TITLE: Truncated glucagon-like peptide-1 interacts with exendin receptors on dispersed acini from guinea pig pancreas. Identification of a mammalian analogue of the reptilian peptide exendin-4
AUTHOR(S): Raufman, Jean Pierre; Singh, Latika; Singh, Gurcharn; Eng, John
CORPORATE SOURCE: Health Sci. Cent., State Univ. New York, Brooklyn, NY, 11203-2098, USA
SOURCE: Journal of Biological Chemistry (1992), 267(30), 21432-7
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To find mammalian analogs of exendin-4, a peptide from Helodermatidae venoms that interacts with newly discovered exendin receptors on dispersed acini from guinea pig pancreas, the actions of glucagon-like peptide-1 [GLP-1(1-37)], its truncated form GLP-1(7-36)NH2, GLP-2(1-34), and pituitary adenylate cyclase-activating peptide were examined and compared with secretin, VIP, and glucagon. Only the truncated form of glucagon-like peptide-1, GLP-1(7-36)NH2 mimicked the actions of exendin-4. Like exendin-4, GLP-1(7-36)NH2 increased acinar cAMP without stimulating amylase release. GLP-1(7-36)NH2-induced increases in cAMP were inhibited progressively by increasing concns. of the specific exendin-receptor antagonist, exendin(9-39)NH2. In dispersed acini from guinea pig and rat pancreas, concns. of GLP-1(7-36)NH2 that stimulated increases in cAMP caused potentiation of cholecystokinin-induced amylase release. Binding of 125I-[Y39]exendin-4 or 125I-GLP-1(7-36)NH2 to dispersed acini from guinea pig pancreas was inhibited by adding increasing concns. of unlabeled exendin-4 or GLP-1(7-36)NH2. Thus, the mammalian peptide GLP-1(7-36)NH2 interacts with exendin receptors on dispersed acini from guinea pig pancreas. Exendin(9-39)NH2, a competitive antagonist of the actions of GLP-1(7-36)NH2 in pancreatic acini, may be a useful tool for examining the physiol. actions of this peptide.

IT **141758-74-9**
RL: BIOL (Biological study)
(glucagon-like peptide 1 truncated form as mammalian analog of)

L3 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2005 ACS on STN
ED Entered STN: 11 Jul 1992
ACCESSION NUMBER: 1992:402472 CAPLUS
DOCUMENT NUMBER: 117:2472
TITLE: Isolation and characterization of exendin-4, an exendin-3 analog, from Heloderma suspectum venom. Further evidence for an exendin receptor on dispersed acini from guinea pig pancreas
AUTHOR(S): Eng, John; Kleinman, Wayne A.; Singh, Latika; Singh, Gurcharn; Raufman, Jean Pierre

CORPORATE SOURCE: Solomon A Berson Res. Lab., Veterans Aff. Med. Cent., Bronx, NY, 10468, USA
SOURCE: Journal of Biological Chemistry (1992), 267(11), 7402-5
CODEN: JBCHA3; ISSN: 0021-9258
DOCUMENT TYPE: Journal
LANGUAGE: English

AB An amino acid sequencing assay for peptides containing an amino-terminal histidine residue (His1) was used to isolate a 39-amino acid peptide, exendin-4, from H. suspectum venom. Exendin-4 differs from exendin-3 by two amino acid substitutions, Gly2-Glu3 in place of Ser2-Asp3, but is otherwise identical. The structural differences make exendin-4 distinct from exendin-3 in its bioactivity. In dispersed acini from guinea pig pancreas, natural and synthetic exendin-4 stimulate a monophasic increase in cAMP beginning at 100 pM that plateaus at 10 nM. The exendin-4-induced increase in cAMP is inhibited progressively by increasing concns. of the exendin receptor antagonist, exendin-(9-39) amide. Unlike exendin-3, exendin-4 does not stimulate a second rise in acinar cAMP at concns. >100 nM, does not stimulate amylase release, and does not inhibit the binding of radiolabeled vasoactive intestinal peptide to acini. This indicates that in dispersed pancreatic acini, exendin-4 interacts only with the recently described exendin receptor.

IT **141758-74-9**
RL: PRP (Properties)
(amino acid sequence of, complete)

E1 THROUGH E6 ASSIGNED

FILE 'REGISTRY' ENTERED AT 10:46:37 ON 19 MAY 2005
L4 6 SEA FILE=REGISTRY ABB=ON PLU=ON (141758-74-9/BI OR 188265-76-1/BI OR 203743-40-2/BI OR 203743-28-6/BI OR 203743-30-0/BI OR 606150-09-8/BI)

L5 6 L1 AND L4

L5 ANSWER 1 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN
RN **606150-09-8** REGISTRY
CN L-Serine, L-histidylglycyl-L-α-glutamylglycyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L-α-aspartyl-L-leucyl-L-seryl-L-lysyl-L-glutaminyl-L-methionyl-L-α-glutamyl-L-α-glutamyl-L-α-glutamyl-L-alanyl-L-valyl-L-arginyl-L-leucyl-L-phenylalanyl-L-isoleucyl-L-α-glutamyl-L-tryptophyl-L-leucyl-L-lysyl-L-asparaginylglycylglycyl-L-prolyl-L-seryl-L-serylglycyl-L-alanyl-L-prolyl-L-prolyl-L-prolyl- (9CI) (CA INDEX NAME)
CI MAN
SQL 39

SEQ 1 HGEGTFTSDL SKQMEEEAVR LFIEWLKNGG PSSGAPPPS
========== ========== ========== =========
HITS AT: 1-39

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 139:286359

L5 ANSWER 2 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN
RN **203743-40-2** REGISTRY

CN Exendin 4 (Heloderma suspectum), 39-L-serine- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 12: PN: WO0069911 SEQID: 12 claimed protein
CN 170: PN: WO0069900 SEQID: 349 unclaimed protein
CN 1: PN: WO0009666 SEQID: 9 unclaimed protein
CN 2: PN: WO0151078 SEQID: 2 unclaimed protein
CN 448: PN: WO2004005342 PAGE: 46 claimed protein
CN 48-86-Exendin ENTP (Heloderma horridum)
CN 4: PN: US6284725 SEQID: 9 unclaimed protein
CN 4: PN: WO0066138 PAGE: 13 unclaimed protein
CN 4: PN: WO0066142 TABLE: 1 unclaimed protein
CN 4: PN: WO0123420 PAGE: 6 unclaimed protein
CN 8: PN: WO0077039 TABLE: 1 unclaimed protein
CI MAN
SQL 39

SEQ 1 HGEGTFTSDL SKQMEEEAVR LFIEWLKNGG PSSGAPPPS
========== ========== ========== =========
HITS AT: 1-39

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 140:105831

REFERENCE 2: 135:205920

REFERENCE 3: 135:132445

REFERENCE 4: 134:290749

REFERENCE 5: 134:51920

REFERENCE 6: 134:37033

REFERENCE 7: 134:21425

REFERENCE 8: 134:13338

REFERENCE 9: 133:345167

REFERENCE 10: 133:345166

L5 ANSWER 3 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN
RN **203743-30-0** REGISTRY
CN Exendin 4 (Heloderma suspectum), 36-(4-thiazolidinecarboxylic acid)-37-(4-thiazolidinecarboxylic acid)-38-(4-thiazolidinecarboxylic acid)- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 482: PN: WO2004005342 PAGE: 46 claimed protein
CI MAN
SQL 39

SEQ 1 HGEGTFTSDL SKQMEEEAVR LFIEWLKNGG PSSGAPPPS
========== ========== ========== =========
HITS AT: 1-39

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 140:105831

REFERENCE 2: 128:192936

L5 ANSWER 4 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN
RN **203743-28-6** REGISTRY
CN L-Serinamide, L-histidylglycyl-L-α-glutamylglycyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L-α-aspartyl-L-leucyl-L-seryl-L-lysyl-L-glutaminyl-L-methionyl-L-α-glutamyl-L-α-glutamyl-L-α-glutamyl-L-alanyl-L-valyl-L-arginyl-L-leucyl-L-phenylalanyl-L-isoleucyl-L-α-glutamyl-L-tryptophyl-L-leucyl-L-lysyl-L-asparaginylglycylglycyl-4-thiazolidinecarbonyl-L-seryl-L-serylglycyl-L-alanyl-4-thiazolidinecarbonyl-4-thiazolidinecarbonyl-4-thiazolidinecarbonyl- (9CI) (CA INDEX NAME)
OTHER NAMES:
CN 480: PN: WO2004005342 PAGE: 46 claimed protein
CI MAN
SQL 39

SEQ 1 HGEGTFTSDL SKQMEEEAVR LFIEWLKNGG PSSGAPPPS
========== ========== ========== =========
HITS AT: 1-39

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 140:105831

REFERENCE 2: 128:192936

L5 ANSWER 5 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN
RN **188265-76-1** REGISTRY
CN Exendin 4, pro- (Heloderma suspectum) (9CI) (CA INDEX NAME)
OTHER NAMES:
CN Exendin 4 (Heloderma suspectum precursor)
CN Exendin ENTP (Heloderma horridum pro-)
CI MAN
SQL 87

SEQ 1 MKIILWLCVF GLFLATLFPI SWQMPVESGL SSEDSASSES FASKIKRHGE
===

51 GTFTSDLSKQ MEEEAVRLFI EWLKNGGPSS GAPPPSG
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HITS AT: 48-86

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 137:346599

REFERENCE 2: 129:185369

REFERENCE 3: 129:78077

REFERENCE 4: 126:223096

L5 ANSWER 6 OF 6 REGISTRY COPYRIGHT 2005 ACS on STN
RN **141758-74-9** REGISTRY
CN Exendin 4 (Heloderma suspectum) (9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN Exendin 3 (Heloderma horridum), 2-glycine-3-L-glutamic acid-
OTHER NAMES:

CN 12: PN: WO0041546 FIGURE: 2 claimed protein
CN 2: PN: WO0066629 FIGURE: 2 unclaimed protein
CN 3: PN: WO0041548 PAGE: 65 unclaimed protein
CN 3: PN: WO2005019262 SEQID: 3 claimed protein
CN 476: PN: WO2004005342 PAGE: 46 claimed protein
CN 7: PN: WO2005019262 SEQID: 3 claimed protein
CN AC 2993
CN AC 2993A
CN Exenatide
CN Exendin-4 (Heloderma suspectum)
CN L-Serinamide, L-histidylglycyl-L-α-glutamylglycyl-L-threonyl-L-phenylalanyl-L-threonyl-L-seryl-L-α-aspartyl-L-leucyl-L-seryl-L-lysyl-L-glutaminyl-L-methionyl-L-α-glutamyl-L-α-glutamyl-L-α-glutamyl-L-alanyl-L-valyl-L-arginyl-L-leucyl-L-phenylalanyl-L-isoleucyl-L-α-glutamyl-L-tryptophyl-L-leucyl-L-lysyl-L-asparaginylglycylglycyl-L-prolyl-L-seryl-L-serylglycyl-L-alanyl-L-prolyl-L-prolyl-L-prolyl-
CI MAN
SQL 39

SEQ 1 HGEGTFTSDL SKQMEEEAVR LFIEWLKNGG PSSGAPPPS
========== ========== ========== =========
HITS AT: 1-39

RELATED SEQUENCES AVAILABLE WITH SEQLINK

REFERENCE 1: 142:373859

REFERENCE 2: 142:349308

REFERENCE 3: 142:330113

REFERENCE 4: 142:280423

REFERENCE 5: 142:233843

REFERENCE 6: 142:191507

REFERENCE 7: 142:190852

REFERENCE 8: 142:79882

REFERENCE 9: 142:74574

REFERENCE 10: 141:406152

FILE 'MEDLINE' ENTERED AT 10:47:07 ON 19 MAY 2005

FILE 'BIOSIS' ENTERED AT 10:47:07 ON 19 MAY 2005

FILE 'EMBASE' ENTERED AT 10:47:07 ON 19 MAY 2005

L6 77 SEA ABB=ON PLU=ON L1
L7 75 DUP REM L6 (2 DUPLICATES REMOVED)
L8 0 SEA ABB=ON PLU=ON L7 AND ((POLYCYST? OR POLY CYST? OR SCLEROCYST?)(W) OVAR? OR STEIN? LEVENTHAL)
L9 0 SEA ABB=ON PLU=ON L7 AND PCOS

L10 0 SEA ABB=ON PLU=ON L7 AND OVAR?

FILE 'HOME' ENTERED AT 10:50:30 ON 19 MAY 2005

Searcher : Shears 571-272-2528

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=> d his ful

     (FILE 'HOME' ENTERED AT 09:47:02 ON 19 MAY 2005)
               DEL HIS Y

     FILE 'REGISTRY' ENTERED AT 10:44:04 ON 19 MAY 2005
L1            72 SEA ABB=ON  PLU=ON  HGEGTFTSDLSKQMEEEAVRLFIEWLKNGGPSSGAPPPS
                 |HGAA[AT].[TS][AST]A.[AS][AK][AQ]/SQSP

     FILE 'CAPLUS' ENTERED AT 10:44:53 ON 19 MAY 2005
L2           109 SEA ABB=ON  PLU=ON  L1
L*** DEL       4 S L2 AND BEELEY ?/AU
L*** DEL       4 S L3 AND PRICKETT ?/AU
                 D TI AU 1-4
L3            15 SEA ABB=ON  PLU=ON  L2 NOT (PY=>2003 OR PD=>20030730)

     FILE 'REGISTRY' ENTERED AT 10:46:20 ON 19 MAY 2005

     FILE 'CAPLUS' ENTERED AT 10:46:20 ON 19 MAY 2005
               D 1-15 .BEVSTR
               SEL HIT L3 1-15 RN

     FILE 'REGISTRY' ENTERED AT 10:46:37 ON 19 MAY 2005
L4             6 SEA ABB=ON  PLU=ON  (141758-74-9/BI OR 188265-76-1/BI OR
                 203743-40-2/BI OR 203743-28-6/BI OR 203743-30-0/BI OR
                 606150-09-8/BI)
                 D QUE
L5             6 SEA ABB=ON  PLU=ON  L1 AND L4
                 D L5 1-6 .BEVREG1

     FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 10:47:07 ON 19 MAY 2005
L6            77 SEA ABB=ON  PLU=ON  L1
L7            75 DUP REM L6 (2 DUPLICATES REMOVED)
L8             0 SEA ABB=ON  PLU=ON  L7 AND ((POLYCYST? OR POLY CYST? OR
                 SCLEROCYST?)(W) OVAR? OR STEIN? LEVENTHAL)
L*** DEL    4635 S PCOS(S)OVAR?
               D KWIC
L*** DEL    4635 S PCOS(S)OVAR?
               D KWIC 2
L9             0 SEA ABB=ON  PLU=ON  L7 AND PCOS
L10            0 SEA ABB=ON  PLU=ON  L7 AND OVAR?

     FILE 'HOME' ENTERED AT 10:50:30 ON 19 MAY 2005


     FILE REGISTRY
     Property values tagged with IC are from the ZIC/VINITI data file
     provided by InfoChem.

     STRUCTURE FILE UPDATES:   18 MAY 2005  HIGHEST RN 850688-83-4
     DICTIONARY FILE UPDATES:  18 MAY 2005  HIGHEST RN 850688-83-4

     New CAS Information Use Policies, enter HELP USAGETERMS for details.

     TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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       conducting SmartSELECT searches.
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Searcher : Shears 571-272-2528